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REMARKS

Claims 1-20 are pending in the present Application. Claims 1, 2, and 8 have been amended, Claims 14 – 19 have been withdrawn, and Claim 20 has been canceled, leaving Claims 1-13 for consideration upon entry of the present Amendment. The Specification has been amended to correct certain typographical errors.

Claim 1 has been amended to more precisely describe the plumbing of the electrochemical cell. Support for this amendment can at least be found in Paragraph [0022], [0027], and [0028] as originally filed.

Claim 8 has been amended to make the preamble commensurate with the claim from which Claim 8 depends.

Claim 2 has been placed in independent form.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Elections/Restrictions

The Examiner contends that the application claims patentably distinct inventions: Group I, Claims 1 – 13, drawn to an electrochemical cell, classified in class 204, subclass 263; Group II, Claims 14 – 16, drawn to a pressure regulating system, classified in class 429, subclass 25; Group III, Claims 17 – 19, drawn to a method of regulating pressure in an electrolysis cell system, classified in class 95, subclass 22; and Group IV, Claim 20, drawn to a computer data signal, classified in class 307, subclass 153. The Examiner requires election of one invention.

Accordingly, pursuant to 35 U.S.C. §121, Applicants hereby confirm the election of Group I, Claims 1 – 13. This election is being made without prejudice to Applicants' rights with respect to Claims 14-20, Groups II, III, and IV, including the right to file divisional application(s) thereon.

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Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1-13 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by WO 98/42617 to Andrews et al. (hereinafter "Andrews"). Applicant respectfully traverses this rejection.

Applicant claims an electrochemical cell stack comprising a phase separation apparatus in fluid communication with and downstream of the electrochemical cell stack, a water discharge in fluid communication with and downstream of the phase separation apparatus, a first flow control device and a second flow control device disposed in fluid communication between the phase separation apparatus and water discharge; and a control device in operable communication with a sensor, the first flow control device, and the second flow control device, wherein the control device is capable of controlling the first flow control device and the second flow control device based upon information from the sensor during operation of the electrochemical cell system.

(Claim 1)

Claim 2 claims an electrochemical cell system comprising a first flow control device and a second flow control device disposed in fluid communication between the phase separation apparatus and water discharge, and between the phase separation apparatus and a hydrogen separator, with a control device in operable communication with a sensor, the first flow control device, and the second flow control device.

Andrews teaches an ozone generation and delivery system that can include a pressure-controlling device, wherein gas pressure is controlled by an anode reservoir gas discharge valve and a cathode reservoir gas discharge valve. "The system may be configured to operate passively with no moving parts or in a self-pressurizing manner with the inclusion of a pressure controlling device or valve in the gas outlet of the anode reservoir." (Abstract)

A system controller may be included in the system and be programmed to operate the anode reservoir gas discharge valve based on the water level in the anode reservoir. The system controller may also be programmed to operate a cathode reservoir gas discharge valve based on the water level in the cathode reservoir.

(Page 3, lines 15 – 18) "The gas valves 42, 48 are operated by the system controller 44 to maintain the desired system pressure..." (Page 26, lines 23 – 24)

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The Examiner asserts that Andrews teaches "valves or flow control devices 54, 56, 58, and 60 which are in communication between the phase separation apparatus 30 and the water discharge 38.... [and] [a] control device 44 in operable communication with a sensor (not shown), the multiple valves used for flow control." (Office Action, pages 4 – 5)

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987). Moreover, the single source must disclose all of the claimed elements "arranged as in the claim." *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). Furthermore, missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

Andrews teaches flow control devices 54, 56, 58, and 60 are used for the initial filling of the system during start-up and not for pressure control.

During initial start-up of the generator, the valves 54, 56 connecting the reservoirs 30, 40 and the DI water source 38 are open, but the valves 58, 60 leading to a system drain 62 remain closed. Deionized water fills the anode compartments 22 and the cathode compartments 24. Prior to filling the anode reservoir 30 and the cathode reservoir 40, the gas valves 42, 48 are closed to allow the pressure in the system to rise up to about 30 psig... The first shut off valve 54 will typically remain open so that the water carried through the proton exchange membrane 26 from the anode compartments 22 to the cathode compartments 24 can rise into the cathode reservoir 40 and eventually return to the anode reservoir 30.

(Page 26, Lines 5 – 19)

It is first noted that Figure 1 and the section of Andrews cited in the Office Action fails to teach an electrochemical cell system comprising a first flow control device and a second flow control device disposed in fluid communication between the phase separation apparatus and water discharge, and between the phase separation apparatus and a hydrogen separator. Andrews also fails to teach the arrangement claimed in Claim 1, namely an electrochemical cell stack comprising a phase separation apparatus in fluid communication with and downstream of the electrochemical cell stack, a water discharge in fluid communication with and downstream of the phase separation apparatus, a first flow control device and a second flow control device disposed in fluid communication between the phase separation apparatus and water discharge; and a control device in operable communication with a sensor, the first flow control device, and the

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second flow control device, wherein the control device is capable of controlling the first flow control device and the second flow control device based upon information from the sensor during operation of the electrochemical cell system.

In Figure 1, Andrews shows two phase separation tanks with one of the tanks providing water to the electrolytic cells. Andrews does not have a water discharge in fluid communication with and downstream of the phase separation apparatus, a first flow control device and a second flow control device disposed in fluid communication between the phase separation apparatus and water discharge (as explained in the Office Action, 38 is identified as the water discharge and 30 is identified as the phase separation apparatus of Andrews; Office Action, pages 4 – 5); and a control device in operable communication with a sensor, the first flow control device, and the second flow control device, wherein the control device is capable of controlling the first flow control device and the second flow control device based upon information from the sensor during operation of the electrochemical cell system.

Since Andrews at least fails to teach a first flow control device and a second flow control device disposed in fluid communication between the phase separation apparatus and water discharge wherein the water discharge is disposed downstream thereof, Andrews fails to anticipate Claim 1 of the present application. Since Figure 1 of Andrews at least fails to teach a phase separation apparatus, water discharge, and a hydrogen separator, Andrews fails to anticipate Claim 2 of the present application. Since Claims 1 and 2 are not anticipated by Andrews, the claims depending therefrom, by definition, are not anticipated by Andrews. It is further noted that Andrews also fails to teach elements of the dependent claims. Reconsideration and withdrawal of this rejection are respectfully requested.

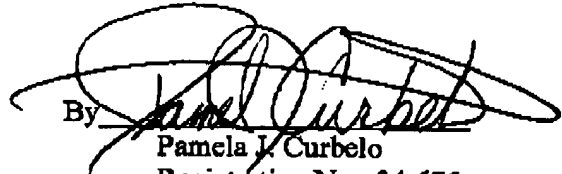
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It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicant. Accordingly, reconsideration and withdrawal of the objection(s) and rejection(s) and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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